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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,270

03/12/2007

Walter Reith

038827.310919

6581

26167 7590 01/02/2008  
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EXAMINER

SCOTT, ANGELA C

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

01/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,270	<b>Applicant(s)</b> REITH, WALTER	
	<b>Examiner</b> Angela C. Scott	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 29-32 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

Claim 5 is objected to because of the following informalities: In line 3 of claim 5, "acetylcaetionate" is misspelled and should be replaced with --acetylacetone--. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

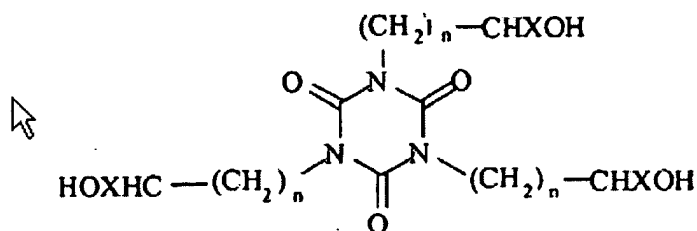
Claims 1-5 and 29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Reith et al. (WO 99/55777). The citations below are taken from US 2003/0209696, an English language equivalent.

Regarding claims 1-4, Reith et al. teaches a stabilizer composition for halogen-containing thermoplastic resins, the stabilizer composition comprising (§10) (a) calcium hydroxide and/or calcium oxide (§11), (b) a hydroxyl group-containing isocyanurate (§12), and (c) linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30). Component (a) is preferably contained in an amount of 0.1 to 5 parts by weight based on the halogen-containing resin (§13). Component (b) is preferably contained in an amount of 0.1 to 3 parts by weight based on the halogen-containing resin (§14). Component (c) is contained in an amount of 0.2 parts by weight based on the halogen-

containing resin (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Regarding claim 5, Reith et al. additionally teaches that calcium acetyl acetate is present in the composition in an amount of 0.2 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B).

Regarding claim 29, Reith et al. additionally teaches that the hydroxyl group-containing isocyanurate is preferably selected from compounds represented by the general formula



wherein groups X and indices n are respectively the same or different and n is an integer of 0 to 5 and X is a hydrogen atom or a straight-chain or branched alkyl group having 1 to 6 carbon atoms (§15-16).

Regarding claim 30, Reith et al. additionally teaches that the composition further comprises hydrotalcites (§31).

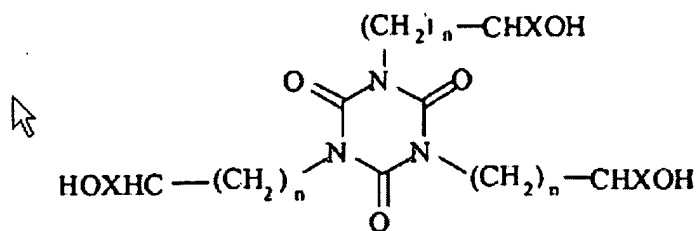
Claims 6-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Reith et al. (WO 99/55777). The citations below are taken from US 2003/0209696, an English language equivalent.

Regarding claims 6-8, Reith et al. teaches a stabilizer composition for halogen-containing thermoplastic resins, the stabilizer composition comprising (§10) (a) calcium hydroxide and/or

calcium oxide (§11), (b) a hydroxyl group-containing isocyanurate (§12), and (c) linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30). Component (a) is preferably contained in an amount of 0.1 to 5 parts by weight based on the halogen-containing resin (§13). Component (b) is preferably contained in an amount of 0.1 to 3 parts by weight based on the halogen-containing resin (§14). Component (c) is contained in an amount of 0.2 parts by weight based on the halogen-containing resin (Tables for Example A and Example B). By these parts by weight, component (a) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition, and component (c) is present in an amount of 0.01 to 1.728% by weight based on the total weight of the stabilizer composition.

Regarding claim 9, Reith et al. additionally teaches that calcium acetyl acetonate is present in the composition in an amount of 0.2 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B). Based on the parts by weight given, this compound is present in an amount of 0.001 to 10% by weight, based on the total weight of the stabilizer composition.

Regarding claim 10, Reith et al. additionally teaches that the hydroxyl group-containing isocyanurate is preferably selected from compounds represented by the general formula



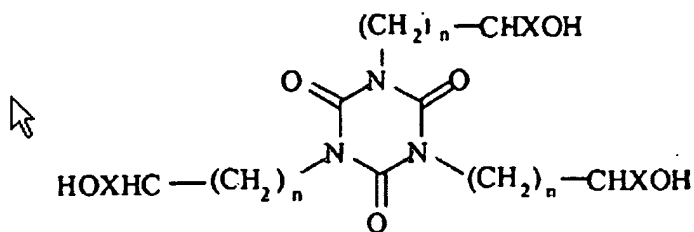
wherein groups X and indices n are respectively the same or different and n is an integer of 0 to 5 and X is a hydrogen atom or a straight-chain or branched alkyl group having 1 to 6 carbon atoms (¶15-16).

Regarding claim 11, Reith et al. additionally teaches that the composition further comprises hydrotalcites (¶31).

Claims 14-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Reith et al. (WO 99/55777). The citations below are taken from US 2003/0209696, an English language equivalent.

Regarding claims 14-16 and 18, Reith et al. teaches a polymer composition comprising a halogen-containing thermoplastic resin (PVC) (Tables for Example A and Example B) and a stabilizer composition comprising (¶10) (a) calcium hydroxide and/or calcium oxide (¶11), (b) a hydroxyl group-containing isocyanurate (¶12), and (c) linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (¶30). Component (a) is preferably contained in an amount of 0.1 to 5 parts by weight based on the halogen-containing resin (¶13). Component (b) is preferably contained in an amount of 0.1 to 3 parts by weight based on the halogen-containing resin (¶14). Component (c) is contained in an amount of 0.2 parts by weight based on the halogen-containing resin (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Regarding claim 17, Reith et al. additionally teaches that the hydroxyl group-containing isocyanurate is preferably selected from compounds represented by the general formula



wherein groups X and indices n are respectively the same or different and n is an integer of 0 to 5 and X is a hydrogen atom or a straight-chain or branched alkyl group having 1 to 6 carbon atoms (§15-16).

Regarding claim 19, Reith et al. additionally teaches that the composition further comprises hydrotalcites (§31).

Regarding claim 21, Reith et al. additionally teaches that calcium acetyl acetonate is present in the composition in an amount of 0.2 phr based on the thermoplastic resin to be stabilized (Tables for Example A and Example B).

Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Reith et al. (WO 99/55777). The citations below are taken from US 2003/0209696, an English language equivalent.

Reith et al. teaches a stabilizer composition for halogen-containing thermoplastic resins (§10), the composition is prepared by mixing (§44) (a) calcium hydroxide and/or calcium oxide (§11), (b) a hydroxyl group-containing isocyanurate (§12), and (c) linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30). Component (a) is preferably contained in an amount of 0.1 to 5 parts by weight based on the halogen-containing resin (§13). Component (b) is preferably contained in an amount of 0.1 to 3 parts by weight based on the halogen-containing resin (§14). Component (c) is contained in an amount of 0.2 parts by weight based on the halogen-containing resin (Tables

for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Reith et al. (WO 99/55777). The citations below are taken from US 2003/0209696, an English language equivalent.

Reith et al. teaches a stabilizer composition for halogen-containing thermoplastic resins (§10), the stabilizer composition is prepared by mixing (§44) (a) calcium hydroxide and/or calcium oxide (§11), (b) a hydroxyl group-containing isocyanurate (§12), and (c) linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30). Component (a) is preferably contained in an amount of 0.1 to 5 parts by weight based on the halogen-containing resin (§13). Component (b) is preferably contained in an amount of 0.1 to 3 parts by weight based on the halogen-containing resin (§14). Component (c) is contained in an amount of 0.2 parts by weight based on the halogen-containing resin (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition, and component (c) is present is an amount of 0.01 to 1.728% by weight based on the total weight of the stabilizer composition.

Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Reith et al. (WO 99/55777). The citations below are taken from US 2003/0209696, an English language equivalent.

Reith et al. teaches a polymer composition prepared by mixing (§44) a halogen-containing thermoplastic resin (PVC) (Tables for Example A and Example B) and a stabilizer composition comprising (§10) (a) calcium hydroxide and/or calcium oxide (§11), (b) a hydroxyl group-



containing isocyanurate (§12), and (c) linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30). Component (a) is preferably contained in an amount of 0.1 to 5 parts by weight based on the halogen-containing resin (§13). Component (b) is preferably contained in an amount of 0.1 to 3 parts by weight based on the halogen-containing resin (§14). Component (c) is contained in an amount of 0.2 parts by weight based on the halogen-containing resin (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Reith et al. (WO 99/55777). The citations below are taken from US 2003/0209696, an English language equivalent.

Reith et al. teaches stabilizing a halogen-containing thermoplastic resin (PVC) (Tables for Example A and Example B) by mixing with it (§44) a stabilizer composition comprising (§10) (a) calcium hydroxide and/or calcium oxide (§11), (b) a hydroxyl group-containing isocyanurate (§12), and (c) linear or cyclic  $\beta$ -diketones and/or the metal salts thereof (§30). Component (a) is preferably contained in an amount of 0.1 to 5 parts by weight based on the halogen-containing resin (§13). Component (b) is preferably contained in an amount of 0.1 to 3 parts by weight based on the halogen-containing resin (§14). Component (c) is contained in an amount of 0.2 parts by weight based on the halogen-containing resin (Tables for Example A and Example B). By these parts by weight, component (b) is present in an amount of 0.01 to 30% by weight based on the total weight of the stabilizer composition.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 1 above, and further in view of Adams et al. (US 2003/0158311).

Reith et al. teaches the basic composition of claim 1. Reith et al. does not teach that the composition further contains a mixture of zinc stearate and at least one organic zinc carboxylate. However, Adams et al. does teach the use of zinc carboxylates, such as zinc stearate, zinc octanoate, zinc palmitate and zinc laurate, in a stabilizer composition (§75). It also teaches that mixtures of these carboxylates are useful too (§75). Reith et al. and Adams et al. are combinable because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing thermoplastic resins. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a mixture of zinc carboxylates, as taught by Adams et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because they can be used as easily incorporated lubricants for the composition.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 6 above, and further in view of Adams et al. (US 2003/0158311).

Reith et al. teaches the basic composition of claim 6. Reith et al. does not teach that the composition further contains a mixture of zinc stearate and at least one organic zinc carboxylate.

However, Adams et al. does teach the use of zinc carboxylates, such as zinc stearate, zinc octanoate, zinc palmitate and zinc laurate, in a stabilizer composition (§75). It also teaches that mixtures of these carboxylates are useful too (§75). Reith et al. and Adams et al. are combinable because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing thermoplastic resins. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a mixture of zinc carboxylates, as taught by Adams et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because they can be used as easily incorporated lubricants for the composition.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 14 above, and further in view of Adams et al. (US 2003/0158311).

Reith et al. teaches the basic composition of claim 14. Reith et al. does not teach that the composition further contains a mixture of zinc stearate and at least one organic zinc carboxylate. However, Adams et al. does teach the use of zinc carboxylates, such as zinc stearate, zinc octanoate, zinc palmitate and zinc laurate, in a stabilizer composition (§75). It also teaches that mixtures of these carboxylates are useful too (§75). Reith et al. and Adams et al. are combinable because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing thermoplastic resins. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a mixture of zinc carboxylates, as taught by Adams et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because they can be used as easily incorporated lubricants for the composition.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 1 above, and further in view of Fokken et al. (WO 02/098964). The citations below for Fokken et al. are taken from US 2004/0138354, an English language equivalent.

Reith et al. teaches the basic composition of claim 1. Reith et al. does not teach that the composition further contains a triglyceride. However, Fokken et al. does teach adding a triglyceride to the stabilizer composition (§101). Reith et al. and Fokken et al. are combinable because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a triglyceride, as taught by Fokken et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because the triglyceride can be used as an easily incorporated lubricant for the composition.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 6 above, and further in view of Fokken et al. (WO 02/098964). The citations below for Fokken et al. are taken from US 2004/0138354, an English language equivalent.

Reith et al. teaches the basic composition of claim 6. Reith et al. does not teach that the composition further contains a triglyceride. However, Fokken et al. does teach adding a triglyceride to the stabilizer composition (§101). Reith et al. and Fokken et al. are combinable because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a triglyceride, as taught by Fokken et al., in the stabilizer composition, as taught by

Reith et al., and would have been motivated to do so because the triglyceride can be used as an easily incorporated lubricant for the composition.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reith et al. (WO 99/55777) as applied to claim 14 above, and further in view of Fokken et al. (WO 02/098964). The citations below for Fokken et al. are taken from US 2004/0138354, an English language equivalent.

Reith et al. teaches the basic composition of claim 14. Reith et al. does not teach that the composition further contains a triglyceride. However, Fokken et al. does teach adding a triglyceride to the stabilizer composition (§101). Reith et al. and Fokken et al. are combinable because they are from the same field of endeavor, namely that of stabilizer compositions for halogen-containing polymers. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a triglyceride, as taught by Fokken et al., in the stabilizer composition, as taught by Reith et al., and would have been motivated to do so because the triglyceride can be used as an easily incorporated lubricant for the composition.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 270-3303. The examiner can normally be reached on Monday through Friday, 7:30am to 5:00pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACS

December 21, 2007

  
MARK EASHOO, PH.D.  
SUPERVISORY PATENT EXAMINER

26/Dec/07